R307. Environmental Quality, Air Quality.

R307-403. Permits: New and Modified Sources in Nonattainment Areas and Maintenance Areas.

# R307-403-1. Purpose and Definitions.

- (1) Purpose. This rule implements the federal nonattainment area permitting program for major sources as required by 40 CFR 51.165. In addition, the rule contains new source review provisions for some non-major sources in  $PM_{10}$  nonattainment areas. This rule, R307-403-5(1), supplements, but does not replace, the permitting requirements of R307-401.
- (2) Unless otherwise specified, all references to 40 CFR in R307-403 shall mean the version that is in effect on July 1, 2017.
- (3) Except as provided in R307-403-1(4), the definitions in 40 CFR 51.165(a)(1) are hereby incorporated by reference. The definition of PAL, or plant wide applicability limitation, in 40 CFR 51.165(f)(2)(v) is also incorporated by reference.
  - (4)(a) "Reviewing authority" means the director.
- (b) In the definition of "significant" in 40 CFR 51.165(a) (1) (x) add the following text at the end of paragraph (F): "The following subparagraphs specify, for certain nonattainment areas, emission rates that are "significant" for Ammonia: (1) In the Provo, UT nonattainment area (as defined in the July 1, 2017 version of 40 CFR 81.345) 70 tons per year or more (2) In the Salt Lake City, UT nonattainment area (as defined in the July 1, 2017 version of 40 CFR 81.345) 70 tons per year or more."
- (c) In the definition of "regulated NSR pollutant" in 40 CFR 51.165(a)(1) (xxxvii), paragraph (C)(2) is amended to read: "(2) Except as specified in R307-101-2 and where the Administrator of the EPA has approved a demonstration satisfying 40 CFR 51.1006(a) (3) which has, for a particular  $PM_{2.5}$  nonattainment area, determined otherwise; Sulfur dioxide, Nitrogen oxides, Volatile organic compounds and Ammonia are precursors to  $PM_{2.5}$  in any  $PM_{2.5}$  nonattainment area."
- (d) The following definitions or portions of definitions that apply to the equipment repair and replacement provisions are not incorporated because these provisions were vacated by the DC Circuit Court of Appeals on March 17, 2006:
- (i) in the definition of "major modification" in 40 CFR 51.165(a)(1)(v)(C), the second sentence in subparagraph (1);
- (ii) the definition of "process unit" in 40 CFR 51.165(a)(1)
  (xliii);
- (iii) the definition of "functionally equivalent component"
  in 40 CFR 51.165(a)(1)(xliv);
- (iv) the definition of "fixed capital cost" in 40 CFR 51.165(a)(1)(xlv); and
- (v) the definition of "total capital investment" in 40 CFR 51.165(a)(1)(xlvi).

# R307-403-2. Applicability.

- (1) R307-403 applies to any new major stationary source or major modification that is major for the pollutant or precursor pollutant for which the area is designated nonattainment under section 107(d)(1)(A)(i) of the Clean Air Act, if the stationary source or modification would locate anywhere in the designated nonattainment area.
- (a) Except as otherwise provided in paragraph R307-403-2(2), and consistent with the definition of major modification contained in 40 CFR 51.165(a)(1)(v)(A), a project is a major modification for a regulated NSR pollutant if it causes two types of emissions increases—a significant emissions increase (as defined in 40 CFR 51.165(a)(1)(xxvii)), and a significant net emissions increase (as defined in 40 CFR 51.165(a)(1)(vi) and (x)). The project is not a major modification if it does not cause a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase.
- (b) The procedure for calculating (before beginning actual construction) whether a significant emissions increase (i.e., the first step of the process) will occur depends upon the type of emissions units being modified, according to paragraphs R307-403-2(1)(c) through (f). The procedure for calculating (before beginning actual construction) whether a significant net emissions increase will occur at the major stationary source (i.e., the second step of the process) is contained in the definition in 40 CFR 51.165(a)(1)(vi). Regardless of any such preconstruction projections, a major modification results if the project causes a significant emissions increase and a significant net emissions increase.
- (c) Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions (as defined in 40 CFR 51.165(a)(1)(xxviii)) and the baseline actual emissions (as defined in 40 CFR 51.165(a)(1)(xxxv)(A) and (B), as applicable), for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in 40 CFR 51.165(a)(1)(x)).
- (d) Actual-to-potential test for projects that only involve construction of a new emissions unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit (as defined in  $40 \ \text{CFR} \ 51.165(a)(1)(iii))$  from each new emissions unit following completion of the project and the baseline actual emissions (as defined in  $40 \ \text{CFR} \ 51.165(a)(1)(xxxv)(C))$  of these units before the

project equals or exceeds the significant amount for that pollutant (as defined in 40 CFR 51.165(a)(1)(x)).

- (e) Reserved.
- (f) Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in R307-403-2(1)(c) through (d) as applicable with respect to each emissions unit, for each type of emissions unit equals or exceeds the significant amount for that pollutant (as defined in 40 CFR 51.165(a)(1)(x)).
- (2) For any major stationary source for a PAL for a regulated NSR pollutant, the major stationary source shall comply with requirements under R307-403-11.
  - (3) Reserved.
  - (4) Reserved.
- (5)(a) Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the state implementation plan and any other requirements under local, state or federal law.
- (b) At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforcement limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of R307-403 shall apply to the source or modification as though construction had not yet commenced on the source or modification;
- (6) The provisions of R307-403-2(6)(a) through (f) apply to projects at existing emissions units at a major stationary source (other than projects at a source with a PAL) in circumstances where there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase and the owner or operator elects to use the method specified in paragraphs 40 CFR 51.165(a)(1)(xxviii)(B)(1) through (3) for calculating projected actual emissions.
- (a) Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:
  - (i) A description of the project;
- (ii) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
- (iii) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under 40 CFR 51.165(a)(1)(xxviii)(B)(3) and an explanation for why

such amount was excluded, and any netting calculations, if applicable.

- (b) If the emissions unit is an existing electric utility steam generating unit, before beginning actual construction, the owner or operator shall provide a copy of the information set out in R307-403-2(6) (a) to the reviewing authority. Nothing in this paragraph shall be construed to require the owner or operator of such a unit to obtain any determination from the reviewing authority before beginning actual construction.
- (c) The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions units identified in paragraph R307-403-2(6)(a)(ii); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.
- (d) If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the reviewing authority within 60 days after the end of each calendar year during which records must be generated under paragraph R307-403-2(6)(c) setting out the unit's annual emissions during the calendar year that preceded submission of the report.
- If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the reviewing authority if the annual emissions, in tons per year, from the project identified in paragraph R307-403-2(6)(a), exceed the baseline actual emissions (as documented and R307-403-2(6)(c), maintained pursuant to paragraph significant amount (as defined in 40 CFR 51.165(a)(1)(x)) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph R307-403-2(6) (c). Such report shall be submitted to the reviewing authority within 60 days after the end of such year. The report shall contain the following:
- (i) The name, address and telephone number of the major stationary source;
- (ii) The annual emissions as calculated pursuant to paragraph R307-403-2 (6) (c); and
- (iii) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).
- (f) A "reasonable possibility" under (R307-403-2(6)) occurs when the owner or operator calculates the project to result in either:

- (i) A projected actual emissions increase of at least 50 percent of the amount that is a "significant emissions increase," as defined in 40 CFR  $51.165(a)(1)(xxvii)(without\ reference\ to\ the$  amount that is a significant net emissions increase), for the regulated NSR pollutant; or
- (ii) A projected actual emissions increase that, added to the amount of emissions excluded under 40 CFR 51.165(a)(1)(xxviii)(B)(3), sums to at least 50 percent of the amount that is a "significant emissions increase," as defined under paragraph 40 CFR 51.165(a)(1)(xxvii) without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant. For a project for which a reasonable possibility occurs only within the meaning of this paragraph, and not also within the meaning of paragraph R307-403-2(6)(f)(i), then provisions R307-403-2(6)(b) through (e) do not apply to the project.
- (7) The owner or operator of the source shall make the information required to be documented and maintained pursuant to paragraph R307-403-2(6) above available for review upon a request for inspection by the director or the general public pursuant to the requirements contained in 40 CFR 70.4(b)(3)(viii).
- (8) The requirements of R307-403 applicable to major stationary sources and major modifications of volatile organic compounds shall apply to nitrogen oxides emissions from major stationary sources and major modifications of nitrogen oxides in an ozone transport region or in any ozone nonattainment area, except in ozone nonattainment areas or in portions of an ozone transport region where the EPA Administrator has granted a nitrogen oxides waiver applying the standards set forth under section 182(f) of the Clean Air Act and the waiver continues to apply.
  - (9) Reserved.
- (10) The requirements of R307-403 apply to new major sources and major modifications to existing sources. Such sources or modifications located in or impacting areas of nonattainment for ozone,  $PM_{10}$ , or  $PM_{2.5}$  shall also consider each precursor to ozone,  $PM_{10}$ , or  $PM_{2.5}$  respectively. Sources or modifications determined to be major for any of these individual precursors shall also be regarded as major for that pollutant for which the area is designated nonattainment.
- (a) In areas of ozone nonattainment, a new stationary source that is major for nitrogen oxides or for volatile organic compounds shall be considered major for ozone. Similarly, a major modification to an existing source that is major for nitrogen oxides or for volatile organic compounds shall be considered major for ozone.
  - (b) In areas of  $PM_{10}$  nonattainment, the requirements of R307-

- 403 applicable to major stationary sources and major modifications of  $PM_{10}$  shall also apply to major stationary sources and major modifications of nitrogen oxides and sulfur dioxides and sulfur dioxide, except where the Administrator determines that such sources do not contribute significantly to  $PM_{10}$  levels that exceed the  $PM_{10}$  ambient standards in the area.
- (c) In areas of  $PM_{2.5}$  nonattainment, the requirements of R307-403 applicable to major stationary sources and major modifications of  $PM_{2.5}$  shall also apply to major stationary sources and major modifications of any individual of  $PM_{2.5}$  precursor as defined in R307-403-1(4)(c).
  - (11) Reserved.
- (12) R307-403 applies to any major source or major modification that is located outside a nonattainment area and is major for the pollutant for which the area is designated nonattainment under section 107(d)(1)(A)(i) of the Clean Air Act and that causes the significant increments in R307-403-3(1) to be exceeded in the nonattainment area.
- (13) R307-403-5 applies to any new or modified source in a  $PM_{10}$  or  $PM_{2.5}$  nonattainment area.

## R307-403-3. Review of Major Sources of Air Quality Impact.

Every major new source or major modification must be reviewed by the director to determine if a source will cause or contribute to a violation of the NAAQS.

(1) If the owner or operator of a source proposes to locate the source outside an area of nonattainment where the source will not cause an increase greater than the following increments in actual areas of nonattainment or in the Salt Lake City and Ogden maintenance areas for carbon monoxide and the source otherwise meets the requirements of these regulations, such source shall be approved.

TABLE

MAXIMUM ALLOWABLE MICROGRAM/CUBIC METER IMPACT
BY AVERAGING TIME

Pollutant	Annual	24-Hr	8-Hr	3-Hr	1-Hr
SULFUR DIOXIDE	1.0	5		25	
PM <sub>2.5</sub>	0.3	1.2			
$NO_2$	1.0				
$PM_{10}$	1.0	3			
CO			500		2000

(2) If the director finds that the emissions from a proposed source would cause a new violation of the NAAQS but would not

contribute to an existing violation, the director shall approve the proposed source if and only if:

- (a) the new source is required to meet a more stringent emission limitation, sufficient to avoid a new violation of the NAAQS and  ${}^{\prime}$
- (b) the new source has acquired sufficient offset to avoid a new violation of the NAAQS and
- (c) the new emission limitations for the proposed source and for any affected existing sources are enforceable.
- (3) For a proposed new major stationary source or major modification that is major for a pollutant, or any individual precursor to that pollutant, for which an area is designated nonattainment, approval shall be granted if and only if:
- (a) the new major source or major modification meets an emission limitation which is the Lowest Achievable Emission Rate (LAER) for such source for the relevant pollutant(s) in the respective nonattainment area;
- (b) the applicant has certified that all existing major sources in the State, owned or controlled by the owner or operator (or by any entity controlling, controlled by or under common control with such owner or operator) of the proposed source, are in compliance with all applicable rules in R307, including the Utah Implementation Plan requirements or are in compliance with an approved schedule and timetable for compliance under the Utah Implementation Plan, R307, or an enforcement order, and that the source is complying with all requirements and limitations as expeditiously as practicable;
- (c) emission offsets to the extent provided in R307-403-4, R307-403-5, and R307-403-6 are sufficient such that there will be reasonable further progress toward attainment of the applicable NAAQS;
- (d) the emission offsets provide a positive net air quality benefit in the affected area of nonattainment; and,
- (e) the restrictions on new or modified sources identified in 40 CFR 52.24 are not applicable.
- (4) A source which is locating outside a nonattainment area or the Salt Lake City and Ogden maintenance areas for carbon monoxide and which causes the significant increments in R307-403-3(1) to be exceeded in the nonattainment or maintenance area is subject to the requirements of R307-403-3(3).

### R307-403-4. Offsets: General Requirements.

(1) All general offset permitting requirements apply for all offsets regardless of the pollutant at issue. General offset permitting requirements shall be imposed immediately and directly on all new major stationary sources or major modifications located in a nonattainment area that are major for the pollutant, or any

individual precursor to the pollutant, for which the area is designated nonattainment.

- (2) Emission offsets must be obtained from the same source or other sources in the same nonattainment area except that the owner or operator of a source may obtain emission offsets in another nonattainment area if:
- (a) the other area has an equal or higher nonattainment classification than the area in which the source is located; and
- (b) emissions from such other area contribute to a violation of the national ambient air quality standard in the nonattainment area in which the source is located or which is impacted by the source.
- (3) Any emission offsets required for a new or modified source shall be in effect and enforceable before a new or modified source commences construction. The new or modified source shall assure that the total tonnage of increased emissions of the air pollutant from the new or modified source shall be offset by an equal or greater reduction, as applicable, in the actual emissions of such air pollutant from the same or other sources in the area. Offsets may not be traded between pollutants, except as required only to satisfy R307-403-5(1) where it pertains to emission increases that are not considered major for  $PM_{10}$  or a  $PM_{10}$  precursor.
- (4) Emission offsets must be surplus, permanent, quantifiable, and federally enforceable. Emission reductions otherwise required by the federal Clean Air Act or R307, including the State Implementation Plan shall not be creditable as emission reductions for purposes of any offset requirement. Incidental emission reductions which are not otherwise required by federal or state law shall be creditable as emission reductions if such emission reductions meet the requirements of R307-403-4(2) and R307-403-4(3).
- (5) Sources shall be allowed to offset, by alternative or innovative means, emission increases from rocket engine and motor firing, and cleaning related to such firing, at an existing or modified major source that tests rocket engines or motors under the conditions outlined in 42 U.S.C. 7503(e) (Section 173(e)(1) through Section 173(e)(4) of the federal Clean Air Act as amended in 1990).

## R307-403-5. Offsets: Particulate Matter Nonattainment Areas.

(1)  $PM_{10}$  Nonattainment Areas. (a) In addition to the general offsetting requirements of R307-403-4, as they apply to new major sources and major modifications as defined in R307-403-2(10)(b), new sources which have a potential to emit, or modified sources which would produce an emission increase equal to or exceeding the tonnage total of combined  $PM_{10}$ , sulfur dioxide, and oxides of

nitrogen listed below which are located in or impact a  $PM_{10}$  Nonattainment Area as defined in R307-403-5(1)(e), shall obtain an enforceable offset as defined in R307-403-5(1)(b) and R307-403-5(1)(c).

- (b) For a total of 50 tons/year or greater, an offset established at a ratio of 1.2:1 of the emission increase is required.
- (c) For a total of 25 tons/year but less than 50 tons/year, an offset established at a ratio of 1:1 of the emission increase is required.
- (d) For the offset determinations required in R307-403-5(1) (b) or R307-403-5(1)(c),  $PM_{10}$ , sulfur dioxide, and oxides of nitrogen shall be considered on an equal basis. In areas where offsets are also required for  $PM_{2.5}$ , and/or ozone, the most stringent emission offset ratio for oxides of nitrogen required by R307-403 or R307-420 shall apply.
- (e) For the purpose of determining whether the owner or operator which proposes to locate a source outside a nonattainment area is required to obtain offsets, the maximum allowable impact on any nonattainment area is 1.0 microgram/cubic meter for a one-year averaging period and 3.0 micrograms/cubic meter for a 24-hour averaging period for any combination of  $PM_{10}$ , sulfur dioxide and nitrogen dioxide.
  - (2)  $PM_{2.5}$  Nonattainment Areas.
- (a) In addition to the general offsetting requirements of R307-403-4, new major sources or major modifications to existing sources which are located in, or would impact a  $_{\text{PM2}}$ .5 nonattainment area as defined in R307-403-3(1), shall obtain an enforceable offset as defined in R307-403-5(2)(d) through (f).
  - (b) a major source is:
- (i) in a moderate nonattainment area, any stationary source of air pollutants which emits or has the potential to emit 100 tons per year or more of direct  $PM_{2.5}$ , or any individual  $PM_{2.5}$  precursor as defined in R307-403-1(4)(c).
- (ii) in a serious nonattainment area, any stationary source of air pollutants which emits or has the potential to emit 70 tons per year or more of direct  $PM_{2.5}$ , or any individual  $PM_{2.5}$  precursor as defined in R307-403-1(4)(c).
- (iii) any physical change that would occur at a source not qualifying under R307-403-5(2) (b) (i) or R307-403-5(2) (b) (ii) as a major source, if the change would constitute a major source by itself.
- (c) For the purposes of determining what is a significant emission increase or a significant net emission increase and therefore a major modification, significant means a rate of emissions that would equal or exceed 10 tons per year (tpy) of direct  $PM_{2.5}$ , 40 tpy of sulfur dioxide, 40 tpy of nitrogen oxides,

- or 40 tpy of volatile organic compounds (VOC). In  $PM_{2.5}$  nonattainment areas where ammonia has not been exempted as a  $PM_{2.5}$  precursor, the rate of emissions that is significant is specified in R307-403-1(4)(b).
- (d) Any increase in emissions that has been determined to require offsets shall be offset at a ratio of no less than 1:1. If the quantity of offsets is determined to be a non-whole number, the offset required shall be rounded up to the next whole number.
- (e) If offsetting requirements for  $PM_{10}$  and/or ozone are also triggered, the most stringent emission offset ratio required by R307-403 or R307-420 shall apply.
  - (f) Offsets may not be traded between pollutants.

### R307-403-6. Offsets: Ozone Nonattainment Areas.

In any ozone nonattainment area, new sources and modifications to existing sources as defined and outlined in 42 U.S.C. 7511a (Section 182 of the Clean Air Act) shall meet the offset requirements and conditions listed in that section for the applicable classified area and for the identified pollutants.

#### R307-403-7. Offsets: Baseline.

The baseline to be used for determination of credit for emission and air quality offsets will be the emission limitations and/or other requirements in the applicable State Implementation Plan (SIP), revised in accordance with the Clean Air Act Section 173(c)(1) or subsequent revisions thereto in effect at the time the application to construct or modify a source is filed. The offset baseline shall be the actual emissions, as defined in R307-401-2, of the source from which offset credits are obtained.

## R307-403-8. Offsets: Banking of Emission Offset Credit.

Banking of emission offset credit will be permitted to the fullest extent allowed by applicable Federal Law as identified in EPA's document "Emissions Trading Policy Statement" published in the Federal Register on December 4, 1986, and 40 CFR 51.165(a)(3)(ii)(c) as amended on June 28, 1989, and 40 CFR 51, Appendix S. To preserve banked emission reductions, the director must identify them in either the Utah SIP or an order issued pursuant to R307-401 and shall provide a registry to identify the person, private entity or governmental authority that has the right to use or allocate the banked emission reductions, and to record any transfers of, or liens on these rights.

# R307-403-9. Construction in Stages.

When a source is constructed or modified in stages which individually do not have the potential to emit more than the significance level for determining a major source, the allowable

emission from all such stages shall be added together in determining the applicability of R307-403.

### R307-403-10. Analysis of Alternatives.

The owner or operator of a major new source or major modification to be located in a nonattainment area or which would impact a nonattainment area must, in addition to the requirements in R307-403, submit with the notice of intent an adequate analysis alternative sites, sizes, production processes, environmental control techniques for such proposed source which demonstrates the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification. The director shall review the analysis. The analysis and the director's comments shall be subject to public comment as required by R307-401-7. The preceding shall also apply in Salt Lake and Davis Counties for new major sources or modifications which are considered major for precursors of ozone, including volatile organic compounds and nitrogen oxides.

#### R307-403-11. Actuals PALS.

The provisions of 40 CFR 51.165(f)(1) through (14) are hereby incorporated by reference.

KEY: air quality, nonattainment, offset

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